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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,067	10/02/2003	Yojiro Matsueda	117390	7780

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EXAMINER	
DUONG, DIEU HIEN	
ART UNIT	**PAPER NUMBER**
2821	

MAIL DATE	DELIVERY MODE
11/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

T/f

Office Action Summary	Application No.	Applicant(s)	
	10/676,067	MATSUEDA ET AL.	
	Examiner	Art Unit	
	Dieu Hien T. Duong	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08/16/07*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 7-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 7-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is a response to applicants' amendment field on August 16, 2007. In virtue of this amendment, claim 6 is cancelled; thus, claims 1-5 and 7-14 are currently in the instant application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2, 4-5 and 7-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komiya et al. (US 2003/0076046 A1) in view of Yamazaki et al. (US6, 825,820 B2), hereinafter "Komiya" and "Yamazaki".

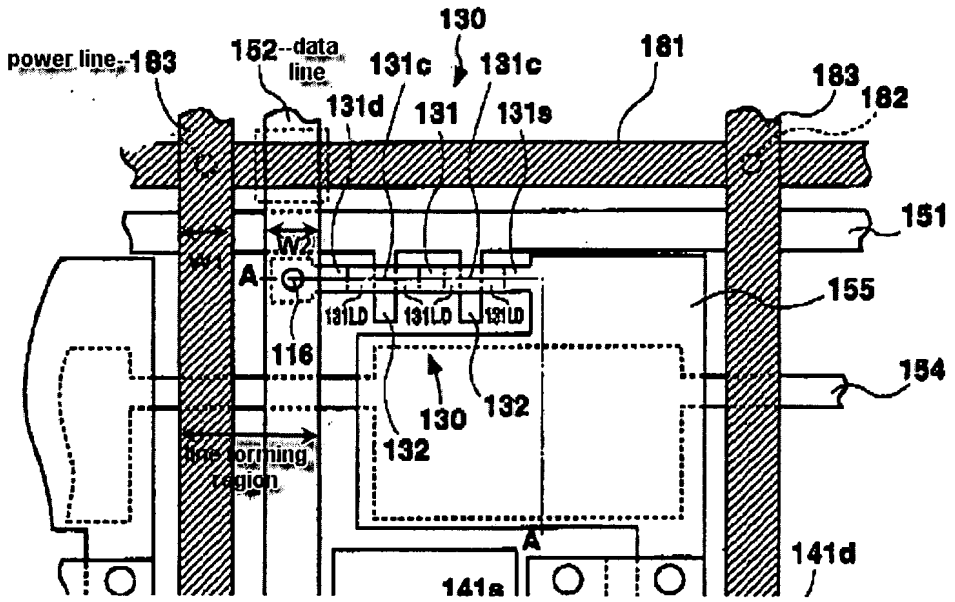
Regarding claim 1, Komiya discloses, in Figures 4-5 and page 5, par. [0067], liens 7-9, an electro-optical device, comprising an electric power supply circuit (180); a plurality of pixels disposed in the form of a matrix, including electro-optical devices driven by receiving electric power from the electric power supply circuit (Fig. 5), the plurality of pixels making up a plurality of pixel groups formed of a series of pixels arrayed in at least one direction of the row direction and the column direction (Fig. 5), line forming regions (183, D) being formed between adjacent pixel groups of the plurality of pixel groups, and the line forming regions (183, D) being formed with generally the same width; a sum of widths (183, D) of a plurality of lines formed in one

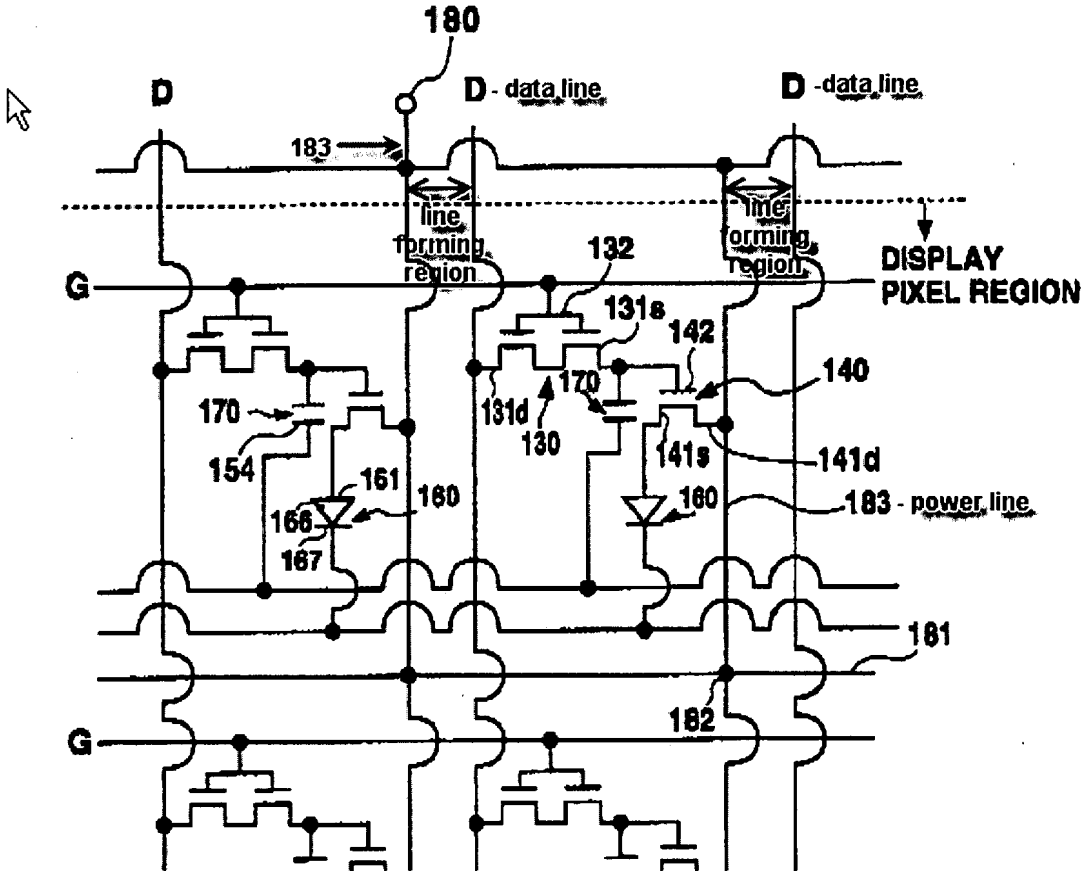
line forming region is approximately the same as that of a sum of widths of a plurality of lines formed in another line forming region (183, D); a plurality of electric power lines (183) to supply driving voltage to the electro-optical devices.

Komiya does not disclose electric power lines with different widths.

Yamazaki discloses, in Figure 1B and page 6, lines 5-15, electric power lines with different widths.

It would have thus been obvious to one having ordinary skill in the art at the time the invention was made to include the electric power lines with different widths of Yamazaki in the display device of Komiya to achieve the claimed invention, doing so would improve the brightness uniformity of the display device (col. 3, lines 62-67).





Regarding claim 2, Komiya discloses, in Figures 4-5 and page 5, par. [0067], an electro-optical device comprising a plurality of scan lines (G); a plurality of data lines (D); a plurality of pixels (Fig. 5), disposed at portions corresponding to intersections of the scan lines (G) and the data lines (D), including electro-optical devices; and a plurality of electric power lines (183) to supply driving voltage to the electro-optical devices; the plurality of pixels making up a plurality of pixel groups formed of a series of pixels arrayed in at least one direction of the row direction and the column direction (Fig. 5), a plurality of line forming regions (183, D) being formed between adjacent pixel groups of said plurality of pixel groups, and at least two lines (183, D) selected from at

least one electric power line of the plurality of electric power lines (183), at least one scan line of the plurality of scan lines, and at least one data line (D) of the plurality of data lines (D), being formed in at least one line forming region of the plurality of line forming regions; and a sum of widths (183, D) of a plurality of lines including at least one electric power line (183) formed in one line forming region is approximately the same as that of a sum of widths of a plurality of lines formed in another line forming region (183, D).

Komiya does not disclose electric power lines with different widths.

Yamazaki discloses, in Figure 1B and page 6, lines 5-15, electric power lines with different widths.

It would have thus been obvious to one having ordinary skill in the art at the time the invention was made to include the electric power lines with different widths of Yamazaki in the display device of Komiya to achieve the claimed invention, doing so would improve the brightness uniformity of the display device (col. 3, lines 62-67).

Claim 4 is rejected for similar subject matter to claim 2.

Regarding claim 5, as applied to claim 1, Komiya/Yamazaki disclose, the line forming regions being formed with generally the same width (see Komiya, lines 7-9 of par. [0076]).

Regarding claim 7, as applied to claim 6, Komiya/Yamazaki disclose, the electro-optical device being a light-emission device and the electric power lines being formed with different widths corresponding to the emission light color of said light-emission device (see Yamazaki, Figure 1B).

Regarding claim 8, as applied to claim 7, Komiya/ Yamazaki disclose, the color of the light which is to be emitted being at least one of red, green, and blue (see Figure 1B of Yamazaki).

Regarding claim 9, as applied to claim 1, Komiya/Yamazaki disclose, in Figures 4-5 and par. [0048], the electro-optical device being an electro-luminescence device (160, see Komiya, Figures 4-5 and par. [0048]).

Claim 10 is rejected for similar subject matter to claim 1.

Claim 11 is rejected for similar subject matter to claim 1.

Claim 12 is rejected for similar subject matter to claim 2.

Regarding claim 13, as applied to claim 1, Komiya/Yamazaki disclose, each of the line forming regions being formed in at least one direction of the row direction and the column direction with generally the same pixel pitch (see Komiya, Figures 4-5).

Regarding claim 14, Komiya/Yamazaki disclose, the combination of the plurality lines being disposed periodically and repeatedly in at least one direction of the row direction and the column direction (see Komiya, Figures 4-5).

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nara et al. (US 6,633,135 B2) in view of Yamazaki et al. (US 6,825,820 B2), hereinafter "Nara" and "Yamazaki".

Regarding claim 3, Nara discloses, in Figure 1, an electro-optical device comprising a plurality of scan lines (VG); a plurality of data lines (VD); a plurality of pixels (11), disposed at portions corresponding to intersections of the scan lines (VG) and data lines (VD) including electro-optical devices; and a plurality of electrical power

lines (VLC) to supply driving voltage to the electro-devices; the plurality of pixels (11) making up a plurality of pixel groups formed of a series of pixels arrayed in at least one direction of the row direction and the column direction, a plurality of line forming regions (VG, VLC) being formed between adjacent pixel groups of the plurality of pixel groups, and both at least one electric power line (VLC) of the plurality of electric power lines and at least one scan line (VG) of the plurality of scan lines being formed in at least one line forming region of the plurality of line forming regions.

Nara does not disclose the electric power lines with different widths.

Yamazaki discloses, in Figure 1B and page 6, lines 5-15, electric power lines with different widths.

It would have thus been obvious to one having ordinary skill in the art at the time the invention was made to include the electric power lines with different widths of Yamazaki in the display device of Komiya to achieve the claimed invention, doing so would improve the brightness uniformity of the display device (col. 3, lines 62-67).

Response to Arguments

4. Applicant's arguments filed August 16, 2007 have been fully considered but they are not persuasive.

Applicant argues that:

i. "a sum of the widths of a plurality of lines including at least one electric power line formed in one line forming region is approximately the same as that of a sum of the widths of a plurality of lines formed in another

line forming region" is not addressed in Office Action mailed May 16, 2007.

ii. Yamazaki cannot properly be combined with Komiya because of doing so would change Komiya's principle of operation as applied to the rejected claims.

Examiner respectfully disagrees.

In response to the first argument, in Office Action mailed May 16, 2007, Komiya discloses, in Figures 4-5, a sum of the widths of a plurality of lines (183, D) including at least one electric power line (183) formed in one line forming region is approximately the same as that of a sum of the widths of a plurality of lines (183, D) formed in another line forming region. Each line forming region includes the power line 183 and data line D in Figure 5 (or data line 152 in Figure 4). Therefore, sum (183 + D) or of the widths of a plurality of lines (183, D) including at least one electric power line (183) formed in one line forming region is approximately the same as that of a sum (183 +D) of the widths of a plurality of lines (183, D) formed in another line forming region.

In response to the second argument, Komiya discloses the line width of power line 183 can be as large as the width of the signal line 152, or even larger (see lines 7-9 of par. [0067]). In other words, the width of the power line 183 can be changed to prevent lack of display luminance. Therefore, It is proper to combine Komiya with Yamaki to provide the electric power lines with different widths wherein the sum of the widths of a plurality of lines in one line forming

widths wherein the sum of the widths of a plurality of lines in one line forming region is approximately the same as that of a sum of the widths of a plurality of lines formed in another line forming region to improve the brightness uniformity of the display device.

Inquiry

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dieu Hien T. Duong whose telephone number is 571-272-8980. The examiner can normally be reached on Monday - Friday, from 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on 571-272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DD
Art Unit 2821

TRINH DINH
PRIMARY EXAMINER